

THESIS TITLE : Study of Hybridoma Technology and Its Application for
Producing Antibody Against Mycobacterium leprae

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ABSTRACT

Hybridoma technology was used to produce mouse monoclonal antibodies against M. leprae. The M. leprae antigen was prepared from infected nude mice footpad tissues as lepromin preparation. This lepromin was used to immunize BALB/c mice in various doses and antibody responses were monitored. At appropriate time, immunized spleen cells from BALB/c mice stimulated with various doses of lepromin were fused with X63-Ag8.653 myeloma cells. The antibody responses of the mice and the hybrid supernatants were detected for antibody activity by ELISA assay. Three hybridomas producing antibodies against the lepromin could be generated in this experiment. One of the positive hybridomas was proven to produce antibody only to M. leprae but not to contaminating nude mice footpad tissues in lepromin preparation. This hybridoma lost its hybrid chromosome and no antibody activities were detected after cloning by limiting dilution. Another two hybridomas were more unstable, they lost their hybrid chromosomes and no antibody production could be detected during the early expansion.

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